

Lesson 3

Considerations in Planning Public Health Surveillance



Objectives for Lesson 3

- Describe the steps in planning public health surveillance
- Describe the rationale for each planning step
- Describe the activity involved in each planning step



Why Plan Surveillance?

- To meet the changing needs of society
- To meet the changing needs of public health
- To obtain information for action



Steps in Planning Surveillance

1. Establish objectives
2. Develop case definitions
3. Develop data collection system
4. Develop data collection instruments
5. Field test methods
6. Develop data analysis approach
7. Determine dissemination mechanism
8. Determine evaluation method



Establishing Objectives



What do we need
to know?



Criteria for Determining High-Priority Events

- Frequency
- Severity
- Direct and indirect costs
- Preventability
- Communicability
- Public interest
- Emerging issues
- Consensus process



Elements of a Case Definition

- Criteria for time, place, and person
- Clinical and laboratory diagnosis
- Epidemiological features of disease
- Degree of certainty regarding diagnosis
- High sensitivity and specificity

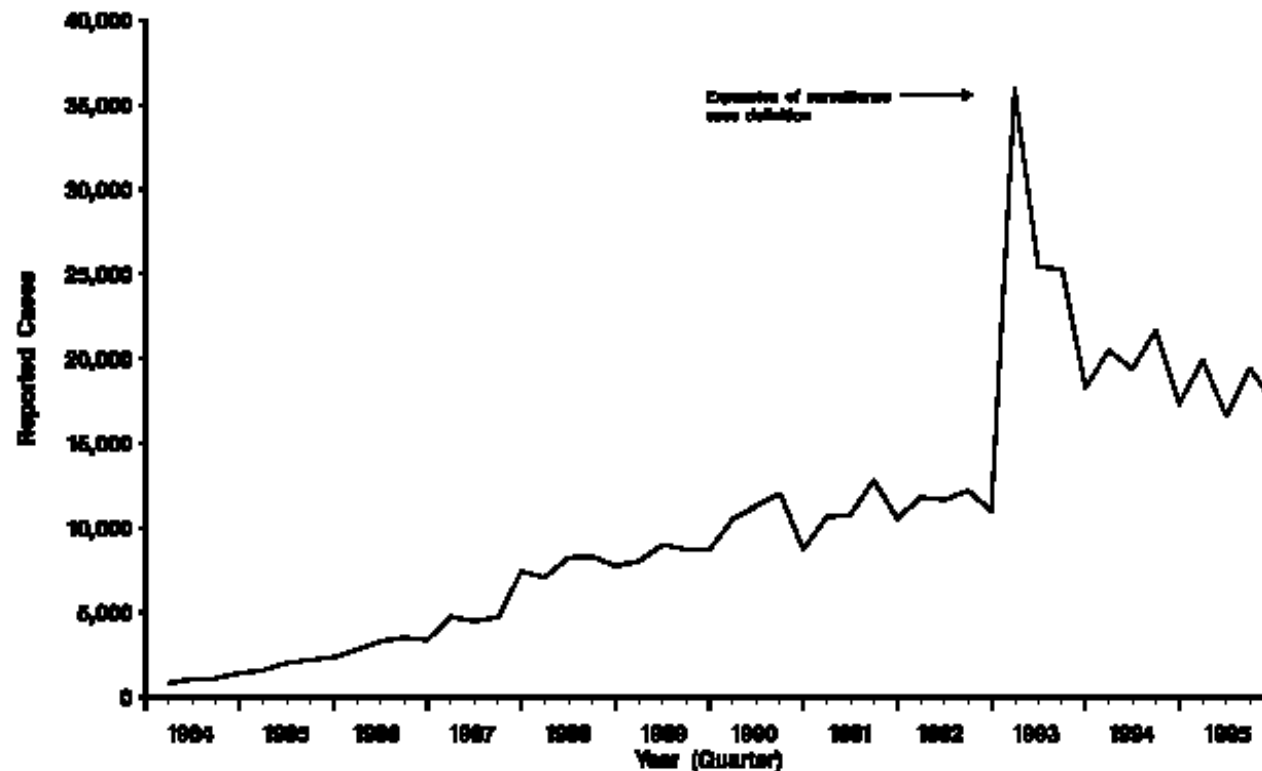


Factors Influencing Case Definitions

- Increase in knowledge
- Criteria for defining case



ACQUIRED IMMUNODEFICIENCY SYNDROME (AIDS) — reported cases, by quarter, United States,* 1984–1995



*Includes Guam, Puerto Rico, the U.S. Pacific Islands, and the U.S. Virgin Islands.

The number of AIDS cases reported during 1995 was lower than the number reported in 1994 or in 1993. This decrease reflects the waning effect of the expansion, in 1993, of the AIDS case definition used for surveillance.

GRAPHS AND MAPS



Determining Data Collection Systems

- Methods of data collection
- Balance between system and its purpose
- Timeliness
- Type of condition
- Need for lab-based information



Types of Data Collection Systems

- Vital records system
- Existing data sets
- Existing registries or surveys



Passive Systems

- Simple
- Less burdensome
- Limited by variability
- May not be representative
- May fail to identify outbreaks
- Portray trends



Active Systems

- Validate representativeness
- Assure more complete reporting
- Can be used with specific investigations
- Can be used for brief periods



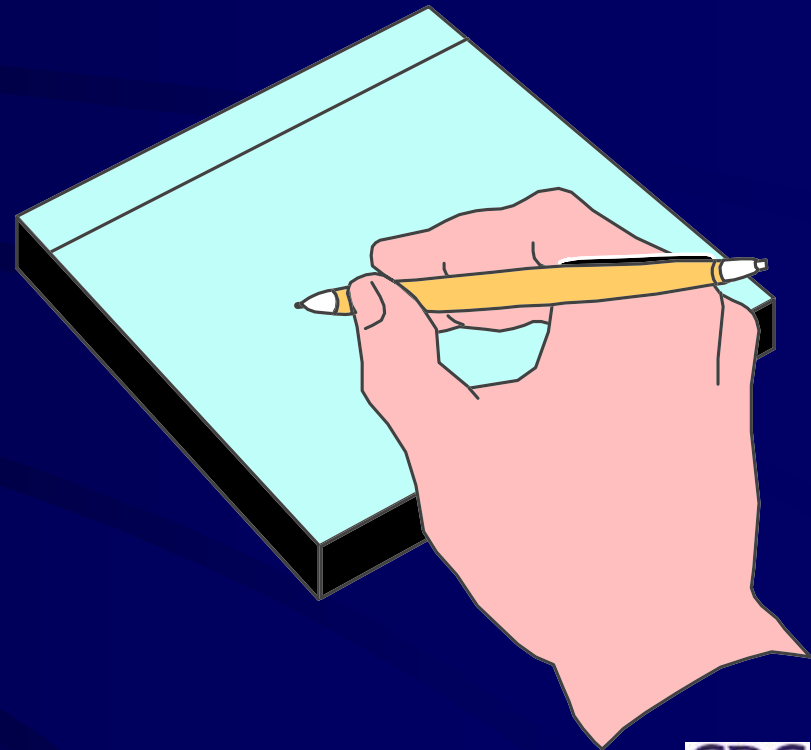
Uses of Limited Surveillance Systems

- Resolve specific problems
- Identify all cases
- Use for logistic or economic reasons



Development of Data Collection Instruments

- Standardization
- Ability to link



Why Field Test?

- Detect problems in data collection system
- Identify problems with validity
- Correct problems with data collection system before implementation



Elements of Field Testing

- Types of data
- Data Sources
- Data collection methods
- Procedures for data handling



Why Plan Your Analysis?



**To assure that the data
source and collection
process
are adequate**



Why Interpret and Disseminate Information?

- Help decision makers understand the implications of information
- Facilitate consequent implementation of public health action



Interpretation of Information

- Present information clearly
- Know your audience



Considerations for Dissemination

- Balance access with privacy constraints
- Provide analyses and recommendations
- Use clear and concise materials
- Use communications media
- Use current AV technology



What Can You Find Out Through Evaluating Your System?

- Is its purpose being met?
- Is the information timely?
- Is the information useful?
- Should the system be continued?
- How can the system be enhanced or revised?



Why Involve Others in Planning?

- Increase potential that data needed is collected
- Facilitate communication
- Increase consensus



Who Should be Involved in Planning?

- Anticipated users
- Clinicians
- Policy makers
- Hospitals
- Voluntary agencies
- Professional groups
- Laboratories
- Health departments
- Program managers
- Public / Community groups
- Administrative groups
- Justice departments

